Washington State Health Care Authority

Health Information Technology:

A Stakeholder Update from Washington's Health Information Infrastructure Advisory Board (HIIAB) Statewide Initiative

Legislator & Policy Maker Stakeholder Progress Report

2:00 pm — **Hearing Room 'B'**

August 1, 2006 — **John L. O'Brien Bldg**

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Today's Objectives

- **Present a high level overview of the project**
- **Get your immediate reactions and ideas on the work, direction and process of the state appointed Board**
- **Solicit your interest in hearing more**
- **Note additional details in appendices**
  - Architecture requirements
  - Assessment of options
  - Other references

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The Problem: "Paper Kills"

- **RAND:** Only 55% of recommended patient care is actually delivered: incomplete information inhibits care delivery
- **ONCHIT:** Use of interoperable EMRs for ambulatory care will save up to 30% of annual health care spending
- **SAFETY, QUALITY & EFFICIENCY:**
  - 98,000 Americans killed annually from medical errors;
  - Improved consistency in care for specific diseases and conditions;
  - $150 billion a year in improved efficiencies in information exchange
- **REALITY:** Widespread application of medical innovation takes average of 17 years; necessitates external motivators, incentives

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Background

"The Problem" - Current Challenges

- Patients do not have ready access to "their" health information
- Providers do not have ready access to their patients health information
- Quality is inconsistent
- Error rates are too high
- Research results are not "applied"
- Public Health surveillance and detection gaps exist
- Escalating costs
- Baby boomers will greatly increase demand

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HealthIT Can Help Address Current Health Care Problems

IMPROVE QUALITY! Healthcare Delivery at Point of Care

- Engage and empower consumers
- Provide access to necessary patient information
- Facilitate decision making

IMPROVE EFFICIENCY & Reducing Costs

- Eliminate duplicate tests/imaging
- Eliminate duplicate communication channels (labs, x-rays, etc)
- Informed consumers will make better choices
- Informed providers will make better choices

Support Public Health Initiatives & Bio-surveillance

- Automated disease reporting
- Automated syndrome reporting

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Governor's 5 Point Health Strategy *Link*

- Emphasize evidence-based health care
- Promote prevention, healthy lifestyles and informed choices
- Better manage chronic care
- Create more transparency in the health care system
- Make better use of information technology

HealthIT addresses each of these goals – it contributes to improving quality, efficiency and reducing costs.

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Major Health System Challenges

- Health Care is largest sector of the economy that has not fully embraced IT
- Health care information is very complex - systems are more expensive and difficult to build
- Organizational and change management issues are hard to manage in a clinical environment
- Challenging to generate capital needed for Health IT investment

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Policy Makers' Intent to Address "The Problem"

- Policy makers wanted to identify the "goal" and recognized a need for a unified vision and direction vs. "taking a blind stab" at the problem
- SSB 5064 intent: a blue print or road map to help define the goal
- Role of HCA and HIAAB in getting us there
- Outline the role of government

Overview SSB 5064 & Project

(Read bill)

- **HCA/HIIAB:** develop strategy for adoption & use of EMRs and HealthIT consistent with national standards & promote inter-operability
- **Strategy must:**
  - Build on current research, best practices
  - Encourage greater adoption of EMR and HealthIT to reduce medical errors & enable patients to make better decisions
  - Promote standards / systems compatible with current adopters in the state
  - Identify implementation obstacles, recommend policies to remove them & strategies for state health purchasing & incentives
  - Advise Legislative and Executive branches on HealthIT infrastructure
  - Ensure strategy complies with state/federal laws

Deliverables - Dec 2005 & 2006

Web site:

http://www.hca.wa.gov/hit/

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Context of HIIAB: Project Activities

How the HIIAB Works:

- 12 Member Board appointed by the Health Care Authority
- HCA staffing and expert consultant
- 15 month project plan and timeline
- Once a month all day work sessions with required reading and other research
- Other state-regional examples /lessons learned/staff direction
- Speaker & expert presentations and HIIAB questions
- Use existing surveys/studies and implications for WA State
- Utilize a consensus approach with defined guiding principles, values and assessment tools
- Use a Stakeholder Advisory Committee

Context of HIIAB: Board Roster

Steve Hill, Administrator Health Care Authority

- **V. Marc Droppert, Chair**

Provider Community:
- Hugh Maloney, M.D., MHA
- Alexis Wilson, PhD, M.N., MPH

HealthIT Expert:
- Jeffrey Hummel, M.D., MPH

Health Care Policy Expert:
- David Masuda, M.D.

Consumers:
- Ed Singler, J.D. State Chapter AARP
- Wendy Anne Carr, B.S., HiNet

Health Plan (Carrier) Representative:
- James Hereford, M.S.

Department of Information Services:
- Gary Robinson

State Agency Medical Director's Group:
- Richard Onizuka, PhD

Other Experts:
- Thomas Fritz, MA, MPA
- Marcus Pierson, M.D.

Project Consultant & HCA Staff
- Bill Yasnoff, M.D., PhD,
- Juan Alaniz, Project Manager
- Ruth McIntosh, Administrative Support

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Context of HIIAB:
Stakeholder Advisory Committee (HIISAC)

Steve Hill, Administrator, *Health Care Authority*

HIISAC represents broad constituencies:

- Consumers
- Hospitals & Long Term Care
- Clinicians
- Payers & Carriers
- Health Policy & Industry Experts

Chair: Sandy Rominger, *Boeing*

Co-Chair: David Deichert, *Doctor Naturopathic Medicine*

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Activities & Work to Date

In the last 9 months:

- Board & Committee assessment of the background issues/the problem
- Adopting framework of design principles, values, requirements
- Heard and seen examples of Washington State - other HealthIT Activities via presentations and other reported research
- Become knowledgeable of work and perspectives in other states and national sector
- Have a "snapshot" on HealthIT adoption nationally and for WA State – we are "early adopters"
- Informal WSMA survey
- Identified unique position WA State is in to expedite meaningful adoption & interoperability
- Heard from forward thinking employers on business case for adoption
- Identified potential WA State HII models to consider and assess
- Beginning a dialogue with affected stakeholders and the public

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Activities & Work to Date

- Evaluated the role of the PHR in EMRs and in promoting wellness and better managing personal health
- Continued stakeholder feedback through HIISAC
- Developing interim strategies to expedite HealthIT adoption
- Promote and support local health information infrastructure development – leveraging existing resources
- Supporting those incremental efforts and initiatives that get us to the goal of statewide adoption and interoperability with privacy, security and confidentiality

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Expected Outcomes

What HIIAB Has Heard Policy Makers & Stakeholders Want:

- Leverage and build on what we have – incremental and practical
- A sensible roadmap and strategy for near term implementation
- An actionable and realistic vision that takes us from the near term to the desired state over time
- Needs to be an independent entity, representative of impacted constituencies
- Participation needs to be voluntary
- Must be financially self-sustaining

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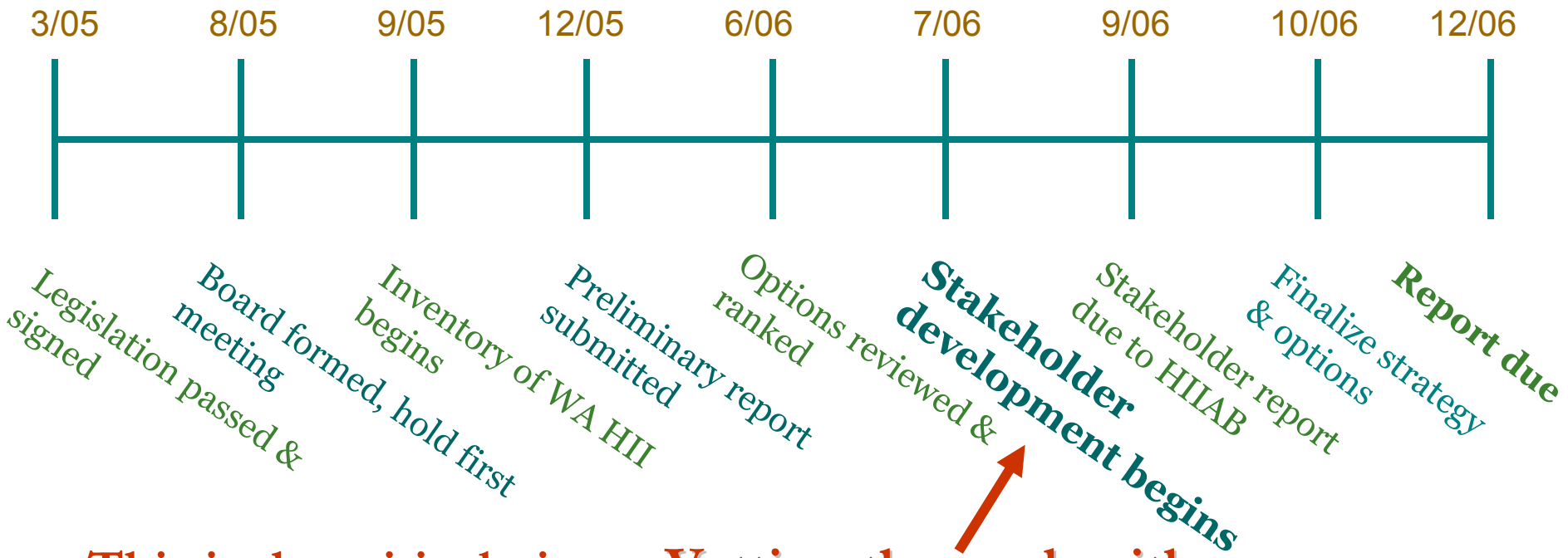
Key HealthIT Challenges for HIIAB

- Business Case & ROI
- Protection of Confidentiality/Creating Trust
- Standards
  - Comply with National Standards
  - Allow Interface of Disparate Systems
- Financing – Source of implementation funding
- Financing – Impacts on smaller providers
- Financing – must be self sustaining long term
- Governance
  - Creating a Model that "works"

The Process: From Legislation to Implementation



This is the critical piece: Vetting the work with you

– Washington State's key health care providers, leaders, consumers and policy makers

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Defining our Terms

- **Health information infrastructure – (private/public infrastructure already exists in various capacities throughout the state, but is incomplete)**
  - **hii:** Intra-enterprise - Servers, networks, communications systems, PCs, etc…
  - **HII:** Shared resources - standards, security policy, interoperable networks, MPI, public utilities, etc…

- **Digitized Medical Records –**
  - **EHR: Electronic health record. Longitudinal, all settings.**
  - **EMR**: Electronic medical record, provider centric "back office" application to catalog and house patient information and perform sophisticated clinical functions
  - **PHR: Patient health record –** a patient centric record of their care
  - **Limited data set:** - Defined, High value collection of information that clinicians would find useful to exchange and make more accessible.

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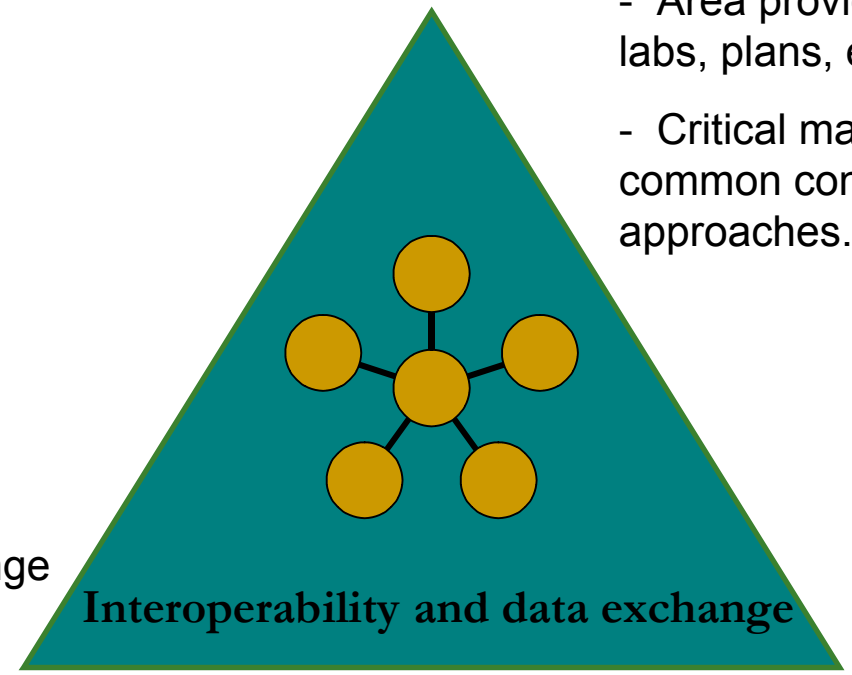
Fundamental Elements of Health Information Infrastructure – "3 C's"

Community

- Area providers, hospitals, physicians, labs, plans, employers, & others
- Critical mass adoption of standards, common content, and connectivity approaches.



Connectivity

- Information exchange networks
- Clinical Clearinghouses
- Security protocols

Content

- A structured data set
- Digitized discharge notes, lab results, prescriptions, recent visit summary, family history, allergies, etc

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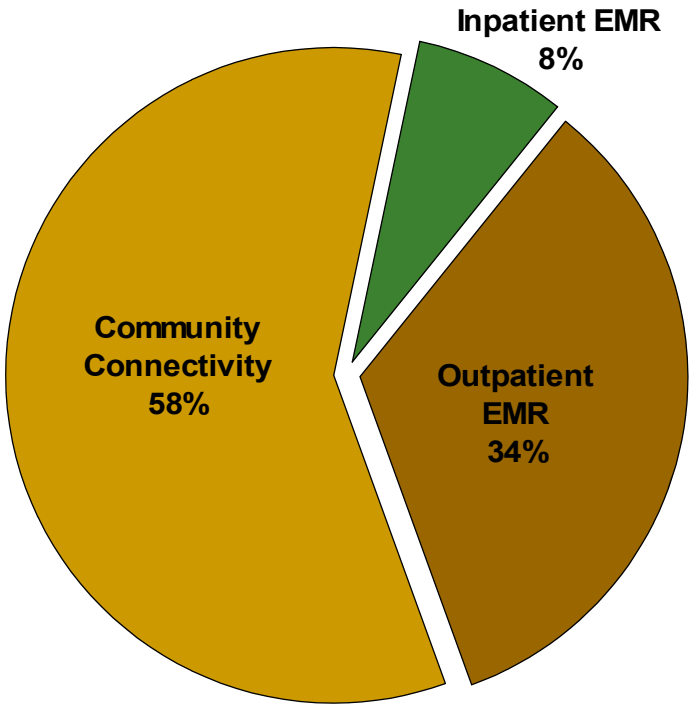
Understanding the 3 C's

- Much of the benefit from HIT is derived from interoperability and ubiquitous data exchange
- Interoperability can only occur if the 3 Cs are present:
  - First, clinical data – "Content" – must be digitized. EMR adoption and intra-enterprise infrastructure key here.
  - Then, the "Community" must move to adopt data standards, agreeing to share the high value information.
  - Lastly there are technology requirements – "Connectivity," significant bandwidth, data clearinghouses, an MPI, etc. If the first 2 C's are available, technology is rarely the obstacle.



Source: Center for Information Technology Leadership, Partners Health Care, Harvard (2004) as presented by NHII Advisors to HIISAC, Jan 2005

The Most Workable Options

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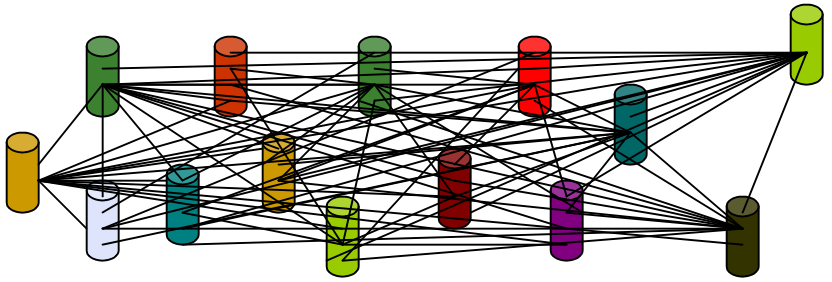
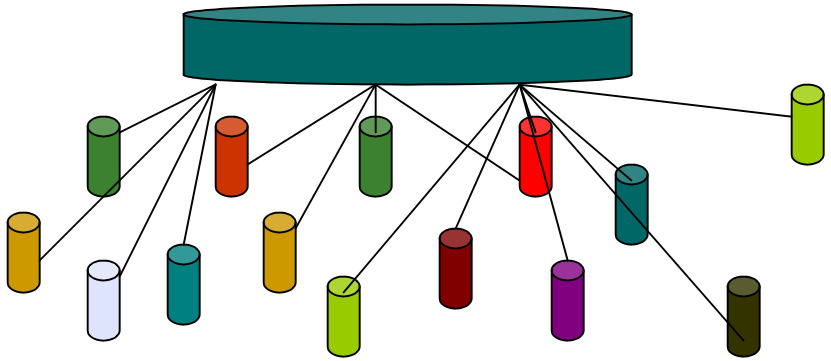
Dispersed Model

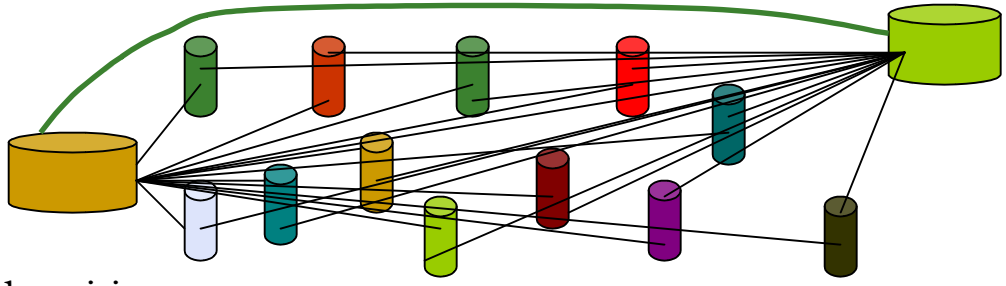
- Interfaces needed w/every provider
- 14 providers = 91 interfaces
- Every data creator is an incomplete data bank





Centralized Health Bank Model

- Interfaces needed w/only Bank itself
- 14 providers = 14 interfaces to 1 Bank
- 1 Bank that all providers must connect to



Competitive Banking Model

- Interfaces needed w/only Banks
- 14 providers = 28 interfaces
- Banks are providers, plans or trusted entities

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The Options Summarized

The HIIAB focused on sharing a defined, high value clinical information set. To do this the **HIIAB defined two ends of a data exchange "spectrum"**.

Distributed Model

On one end, is the "Distributed model". In this theoretical model, every data provider interfaces to every other data provider and the entire community is wired to each other. This model has significant challenges and is likely not feasible due to the heavy infrastructure requirements and fact that this level of technology management and investment is not going to happen in a fragmented medical community.

Centralized Model

On the other end of the spectrum is a centralized model for the entire state. In this scenario all data providers would send the clinical data set to a single "data bank" and each patients record would be stored centrally. While this model solves some of the technology barriers, it too is likely not very practical because many existing organizations would see this central data bank as duplicative to their existing capabilities and storage of all of the records in a single repository would be a very significant undertaking.

Competitive Banking Model

At this point in time the HIIAB is focusing in on the "Competitive Banking model" as the most workable option. In this model different data banks would coexist and a single bank would host the defined, limited data set of a patient. The details of this model are now presented.

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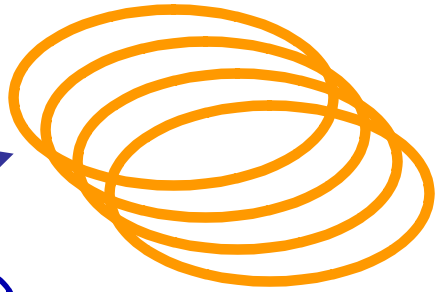
Details of Preferred Option



Other Health Info Banks

Encounter Data sent to Community Clearinghouse

Community Clearinghouse:

List of Health Info Banks for each person

Encounter Data sent to Proper Health Info Bank

Secure patient health data files

Clinician EHR System

Encounter Data Entered in EHR

Patient data delivered to Clinician

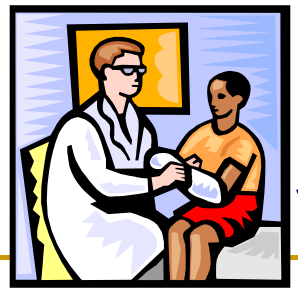
YES

Patient Permission?

NO

DATA NOT SENT

Health Information Bank A



Clinical Encounter

Clinician Inquiry

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Preferred Option: Key Elements

- **This model has a few important elements that make it work.**
  - First there is a **community clearinghouse** that routes the defined limited data set to the "host bank" of each patient.
  - The **patients information is secure** and withdrawal of information must be within the scope of HIPAA, i.e., treating the patient, and or with explicit patient approval.

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Details of Preferred Option

Highlights of the Competitive Banking Model

- Multiple "Health Information Banks" (HIB) can be created throughout a community
- Bank is responsible for hosting all new patient information, from throughout entire "community"
- Patients have control over access to information, who stores information, and can audit access reports
- Sustained through small fees paid by Patients or their sponsors
- Community Clearinghouse needed to connect various Banks, and determine which patient's info belongs in which Bank

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Details of Preferred Option

Advantages

of the Competitive Health Information Banking concept:

1. Community Clearinghouse is relatively simple to operate, assuming data standards
2. Community Clearinghouse doesn't store any medical information, simply a router
3. Competitive Bank market is created, resulting in lower prices, better service for consumers
4. Each person's HR would be immediately available from their Bank
5. Existing groups with EMR & data warehousing systems could offer Banking Services
6. A single Community Clearinghouse is easily scalable given a relatively low number of Health Information Banks
7. Individual communities would be free to develop their local health information infrastructure in whatever way they choose as long as there is
   1) access to HRs for members of their community; and
   2) an input channel where medical information generated outside the community could be sent.

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Details of Preferred Option

Disadvantages
of the Competitive Health Information Banking concept:

1. A new community organization, the Community Clearinghouse, must be established (and funded)
2. Organizations must decide to offer Health Information Banking services
3. Choosing a Health Information Bank may be confusing for consumers
4. State-of-the-art physical and computer security methods must be used to protect the HR information in each Health Information Bank
5. A mechanism must be established to assure that each Health Information Bank adheres to minimum consumer protections and assure portability of their information
6. This approach does not necessarily provide incentives for physicians to acquire and use electronic medical record systems in their offices

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Next Steps & Direction

- **Narrow the Dialogue and Assessment** of the Most Workable HII Models
  - Dispersed Model
  - Centralized Health Bank Model
  - Competitive Health Banking Model
- **Stakeholder Feedback and Engagement**

This process!

- **Strategy development** through stakeholder feedback & subcommittee work (Consumer, Governance, Financing & Sustainment, Technical & Infrastructure)
- **Submit the final report to the Legislature by December 1, 2006**

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Final Report & Recommendations

- Want and need stakeholder support and inclusion – **it MUST be a collective recommendation**

- Result in something that is actionable, and contributes to positively changing our health care system, and to improving "health"

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Perfection must not become the enemy of progress

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Website: http://www.hca.wa.gov/hit/

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References & Appendices

References:

- Target Statement: "Ensure the timely availability of relevant health information and decision support whenever and wherever needed…"
- Assessment of architectural models for health information infrastructure
- "Competitive Banking Model" Analysis document

Appendices:

- Architecture Requirements & Summary of Options
- Stakeholder Roster (HIISAC)

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Architecture Requirements

Functions

1. **The substantive health record** (HR) of each participating consumer from all sources (with each source identified) **is available** to authorized users when/where needed, but unavailable otherwise.
2. Participation in the HII system is **voluntary and available to all consumers**.
3. **Each consumer controls access** to each portion of their own HR (i.e. each consumer designates the authorized users of each portion of their HR).
4. Incomplete information or errors in HR information can be addressed by **authorized users via systematic procedures**.
5. All or part of a consumer's HR information may be **transferred securely and electronically at such consumer's request**.
6. With voluntary consumer authorization, **HR information may be made available for public health and medical learning**.
7. All information maintained in system is **reliably associated with the right consumer**.

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Architecture Requirements

Privacy, Confidentiality, and Security

8. All **users are reliably authenticated**.
9. Consumers may access a **record of all accesses** to their own HR information.
10. The HII system **complies** with all applicable privacy and security statutes and regulations.
11. HII system security is **maintained and reviewed periodically** to assess compliance with the then current state-of-the-art.

Organizational & Financial

12. A **trusted organization operates shared elements of the HII system**, and facilitates its interface with existing healthcare organizations' internal health information systems.
13. **The HII system is financially sustainable from operating fees.**

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Architecture Requirements

Technical

14. HR information is transmitted electronically using **national standards** whenever available (**and system standards when not**).

15. HII **users are able to use whatever information system(s) they choose**, provided they can transmit and receive information using designated standards.

16. The HII system is **highly available and highly reliable**.

17. **The HII accommodates the use of existing infrastructure**.

18. The **HII system is scalable** to accommodate all consumers of health care in Washington State.

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Measuring Our Options

Requirement	Health Record	Patients Control	Error Correction	Info Transfer	Public Health	Correct Individual Association	Use of Standards
Distributed Model	Slow	X	Depends	X	No	Challenging	X
Central Bank	X	X	X	X	X	X	X
Competitive Banking	X	X	X	X	X	X	X

The mark of X signifies the fulfillment of this requirement

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Measuring Our Options

Requirement	Use Any EHR	Audit Trails	Complies w/ Privacy, Security	Financially Sustainable	Available & Reliable	Existing Infrastruc-ture	Scalable
Distributed Model	Slow	X	Challenging	Unlikely	No	Needs new component	Chal-lenging
Central Bank	X	X	X	Likely	X	Needs repository	X
Competitive Banking	X	X	X	Likely	X	Needs router	X

The mark of X signifies the fulfillment of this requirement

HIISAC Roster

Steve Hill, Administrator Health Care Authority

HIISAC represents broad constituencies:

- **Consumers**
- **Hospitals & Long Term Care**
- **Clinicians**
- **Payers & Carriers**
- **Health Policy & Industry Experts**

Chair: Sandy Rominger, Boeing

Co-Chair: David Deichert, Doctor Naturopathic Medicine

- Dr. Karen Anderson, DVA
- Lisa Alkin, Puyallup Tribal Authority
- Dr. Corinne Bell, Pacific Care
- Tom Byron, WSHA
- John Christensen, Christensen ITLaw
- Richard Campbell, DSHS
- Brian DeVore, Intel Digital Health Group
- Dr. Andy Fallat, FHCQ
- Ralph Foquera, Seattle Indian Health Board
- Laura Groshong, Social Work Practitioners
- Janet Hamilton, CUP
- Lance Heineccius, PSHA
- Kristen Huff, Regence
- Tom Jones, Community Choice PHO
- James King, L & I
- Karen Langer, School of Arts & Sciences
- Seth Lubin, Intel Digital health Group

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HIISAC Roster, cont.

- Dr. Paul Nichol, DVA, Puget Sound
- Jay Pathy, HealthUnity
- Stephen Pence, HealthIT Consultant
- Bob Perna, WSMA
- Dr. John Robinson, Molina Health Care
- Jeff Rochon, WA State Pharmacy Association
- Rick Rubin, One Health Port (OHP)
- Ray Sahali, UW Library
- Ron Schafer, WA State Pharmacy Association
- Mark Simon, Maxwell IT
- Dr. Dean Sittig, Kaiser Permanente
- Lauri St. Ours, WA Health Care Association
- Gil Thurston, Senior Lobby
- Frank Westrum, WA State Department of Health
- Dr. Vicki Wilson, Consumer
- DJ Wilson, Northwest Physicians Network
- Dr. Brenda Zierler, University of Washington